DVR

Digital Video Recorder

USER MANUAL

DVR-H9106UVD-SV

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SAFETY INSTRUCTIONS

1. Use proper power source.
Do not use this product with a power source that applies more than specified voltage (100-240V AC).

2. Never insert anything metallic into DVR.
Inserting metal object into the DVR can be a source of dangerous electric shock.

3. Do not operate in wet or dusty environment.
Avoid places like a damp basement or dusty hallway.

4. Do not expose this product to water.
If this product gets wet, unplug it and contact an authorized dealer immediately.

5. Keep product surfaces clean and dry.
To clean the outside case of the DVR, use a cloth lightly dampened with water (no solvents).

6. Provide proper ventilation.
Although the H9106UVD-SV is equipped with internal cooling fans, a hard drive is used for video storage, which generates heat during operation. Do not block the air vents (bottom, upper, sides and back) of the DVR that cool down the system while running.

7. Do not attempt to remove the top cover.
You may be subjected to severe electrical shock if you remove the cover of the DVR. If there are any unusual sounds or smells coming from the DVR, unplug it immediately and contact Customer Service.

8. Handle DVR box carefully.
Dropping the DVR on any hard surface may cause a malfunction. If the DVR does not work properly due to physical damage, please contact Customer Service for repair or exchange.

9. Use standard lithium cell battery. (NOTE: Manufacturer has preinstalled battery.)
The standard lithium cell 3v battery located on the motherboard should be replaced if the time clock does not hold its time after the power is turned off. Warning: unplug the DVR before replacing battery or you may be subjected to severe electrical shock. Properly dispose of old batteries.

WHAT YOU GET

1.1 - Benefits

✓ Watch what's going on as it happens in real time.
✓ Save your recorded files and snapshots on a DVR-rated hard drive.
✓ Backup and move your videos off-site with either a USB flash drive, external hard drive, or DVD±RW drive.
✓ View what you recorded straight from the DVR or remotely from a computer.
✓ Set up your DVR to be accessed from any Internet-connected computer. Friends, family, and co-workers can be given permission, too. Double-encoded bit network transmission keeps your video secure.
✓ Get notified of system event and motion detection – by e-mail, too!

✓ Move through menus easily and quickly with RS485 keyboard (not included) and USB 2.0 mouse.
✓ Connect Pan/Tilt/Zoom cameras – freeing you from fixed position cameras – and giving you 180˚ motion control, leaving no corners undetected.
✓ Download and install software on your mobile phone to view your DVR and cameras.
✓ Record, play back, and connect remotely at the same time with Triplex technology.
✓ Pierce low- or no-light conditions using cameras with Infrared LED light (night vision) technology.
✓ Pack your videos in increments of 15, 30, 45 or 60 minutes for better search and storage.
✓ Display menus in your language with Multi-lingual OSD (Operating System Display).
✓ Configure your DVR and cameras with a familiar look and feel with graphical interface.
✓ Connect a standard VGA computer monitor or a TV with RCA jacks (using BNC-to-RCA adapter).
✓ Keep your DVR in optimal performance condition by scheduling automatic restarting.
✓ Store more videos on the DVR and use less space with H.264 (MPEG-4) video compression format.

1.2 - DVR SPECIFICATIONS

Model	DVR-H9106UVD-SV-16 CH Standalone DVR
Video Compression	H.264
Audio Compression	8kHz * 16 bit ADPCM
Operating System	Linux Based
Signal System	NTSC / PAL
Video Input	BNC16-Channel Input
Video Output	BNC2-Channel Output
Audio Input	BNC4-Channel Input
Audio Output	BNC2-Channel Output
Display Frame Rate	NTSC: 480fps / PAL: 400fps
Display Resolution	D1: 704 x 480 (NTSC) / 704 x 576 (PAL)
Recording Frame Rate	NTSC: 480 fps/ PAL: 400 fps
Playback Resolution	NTSC: CIF (352x240), PAL: CIF (352x288) ½
Recording Mode	Always / Schedule / Manual / Motion Detection / Sensor Triggered / Net-viewer Recording

DVD Writer	Optional
Network Connection	10/100 Ethernet (RJ-45)
Network Protocol	TCP/IP, DDNS
Network Remote	Remote Client Software and IE Browser
3G Mobile	Support mobile phone based on Windows Mobile, Symbian S60 3rd, iPhone and blackberry
VGA Output	Yes
Alarm	16 CH Input / 1 CH Output
PTZ Control	Built-in RS485, Support PELCO-P/D
USB	3 USB Interfaces
Remote Control	Included
Mouse	Included
Power Supply	DC12V, 3A
HDD Support	SATA HDD x 1 (Max up to 1TB)

Table 1-1: DVR Technical Specifications

1.3 PACKAGE CONTENTS

(1) H9106UVD-SV DVR
(1) 12V Power Supply with power cord
(1) USB mouse
(1) Remote Control
(2) AAA batteries
(1) User Manual
(1) Software CD
Extra Phillips screws

1.4 – OPTIONAL COMPONENTS

The following components are not included with the bare DVR, but can be added as customizations during checkout. Complete kits may come with one or more of these.
500GB or 1TB HDD
19" LCD Monitor
DVD±RW Drive

1.5 – WHAT IS THE H9106UVD-SV?

The H9106UVD-SV is our professional series DVR with 16 camera-input channels, a VGA output port for viewing on a computer monitor (sold separately), and a DVD±RW Drive for backup.

2 – DVR PANELS AND CONTROLS

2.1 – H9106UVD-SV FRONT PANEL

Figure 2-2: H9106UVD-SV Front Panel

A. Move Left	**I. Left Control Panel**
B. Enter/Select	**J. Unknown**
C. Move Right	**K. Rewind**
D. Move Up	**L. Skip Forward**
E. Open Main Menu/Esc Current Menu	**M. Play**
F. Move Down	**N. USB Backup Device Port**
G. Right Control Panel	**O. Fast Forward**
H. DVD Drive Door	

Table 2-2: H9106UVD-SV Front Panel Controls (The front panel design may vary.)

2.1.1 – H9106UVD-SV FRONT PANEL NAVIGATION

Up/Down – Move Up/Down

REW – Move Left

FWD – Move Right

Menu/Esc – Accesses Main Menu or Exits current screen

SEL – Confirms selection or Edits field value

2.1.2 – H9106UVD-SV FRONT LEFT PANEL CONTROLS

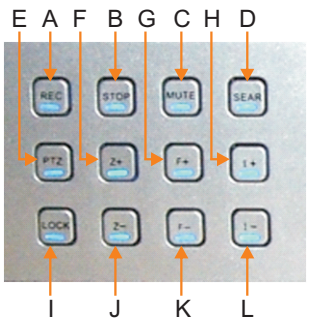


Figure 2-2: H9106UVD-SV Front Right Panel Controls

A. Starts Manual Recording	I. Locks Menu
B. Stops Manual Recording	J. Zoom Out
C. Mutes Audio Output	K. Focus Out
D. Opens Video Search Menu	L. Close Iris
E. Opens PTZ Setup	
F. Zoom In	
G. Focus In	
H. Open Iris	

Table 2-3: Front Right Panel Controls

2.1.3 – H9106UVD-SV FRONT RIGHT PANEL CONTROLS

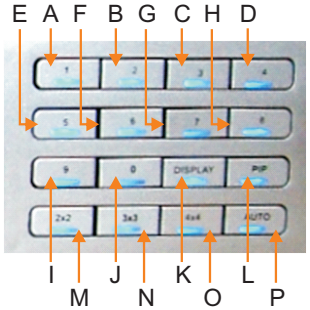


Figure 2-3: Front Right Panel Controls

A. Channel 1	I . Channel 9
B. Channel 2	J . Channel 10
C. Channel 3	K. Change Display Mode
D. Channel 4	L. PIP Mode
E. Channel 5	M. 2x2 Channel View
F. Channel 6	N. 3x3 Channel View
G. Channel 7	O. 4x4 Channel View
H. Channel 8	P . Start Rotate

Table 2-4: Front Right Panel Controls

2.2 – H9106UVD-SV **REAR PANEL**

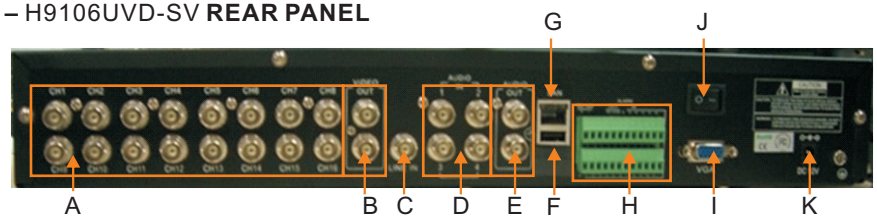
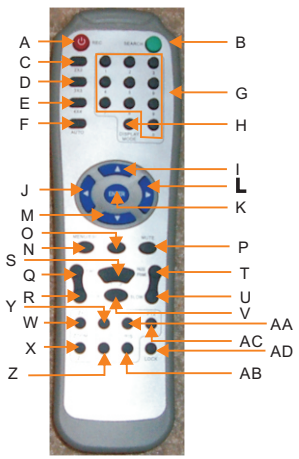


Figure 2- 4: H9106UVD-SV Rear Panel

A. Video In CH1-CH16	**E. Two (2) Audio Outputs**	**I. VGA Output**
B. Video Out 1and 2	**F. USB Mouse Port**	**J. Power Switch**
C. Line In	**G. Ethernet Port**	**K. DC 12V Input**
D. Four (4) Audio Inputs	**H. RS485 Interface**	

Table 2-5: H9106UVD-SV Rear Panel Controls

2.3 – REMOTE CONTROL



A. Start Recording	**R. Start Recording**
B. Video Search	**S. Video Search**
C. 2x2/Quad View	**T. 2x2/Quad View**
D. 3x3/9-CH View	**U. 3x3/9-CH View**
E. 4x4/16-Ch View	**V. 4x4/16-Ch View**
F. Start/Stop Rotate	**W. Start/Stop Rotate**
G. Number Pad/CH1-CH10	**X. Number Pad/CH1-Ch10**
H. Toggles C-E Views	**Y. Toggles C-E Views**
I . Move Up	**Z . Move Up**
J. Move Left	**AA. Move Left**
K. Enter	**AB. Enter**
L . Move Right	**AC . Move Right**
M. Move Down	**AD. Move Down**
N. Main Menu/Escape	
O. Play In Play	
P . Mute	
Q. Fast Forward	

Table 2-6: H9106UVD-SV Remote Control Functions table

3- INSTALLING YOUR DVR HARDWARE

This section refers exclusively to the connection of hardware to the DVR. Forinformation regarding software configuration, please refer to the applicable section of the manual.

3.1 - INSTALLING YOUR HARD DRIVE

If a hard drive was selected with the purchase of the DVR, the hard drive is already installed. Although not recommended, a bare DVR can be purchased without a hard drive, requiring one to be installed separately.

1. Remove chassis screws.
2. Slide back DVR chassis cover.
3. Insert data cable securely into hard drive.
4. Insert power cable securely into hard drive.
5. Place hard drive upside down in bay and fasten with screws.
6. Carefully replace cover.
7. Reattach chassis screws.

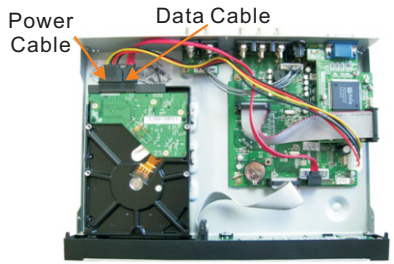


Figure 3-5: Inside the DVR with hard drive installed correctly

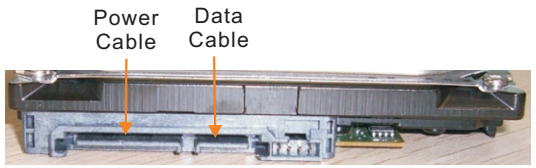


Figure 3-6: SATA HDD cable connections

3.2 - CONNECTING YOUR CAMERAS

Important! There is only one way to correctly connect cables. If the connections do not fit together properly, reverse the cables.

3.2.1 - INDOOR/OUTDOOR, DOME, AND BULLET CAMERAS

What you will need:

- Camera
- DVR
- Video + Power Extension Cable
- 12V Power Adapter or Power Box

Important! Do not use any other power sources other than those provided with the package.
Your camera has a built-in cord that splits into one (1) BNC video connector and one (1) RCA 12V DC power connector.

Step 1: Connect the female BNC video connector from the camera into the male BNC video connector of the extension cable. The male end attaches to the female end clockwise and locks into place.

Figure 3-7: Video/power extension cable and camera's BNC female video cable connected

Step 2: Your 16-Channel DVR has sixteen video input ports, labeled CH1 to CH16, corresponding to the channel that is viewed and configured in the DVR console. Select the video input channel of your choice and attach the BNC connector on the other end of the extension cable to the video input channel.

Figure 3-7: DVR rear panel with CH1 input, power adapter, and VGA output connected.

Step 3: Connect the female end of the 12V DC power connector from the camera to male end on the extension cable.

Figure 3-8: DVR rear panel with CH1 input, BNC Video Out, USB mouse, VGA output, and power adapter connected.

Step 4: Connect power connector on other end of extension cable to Zmodo power adapter or power box.

Figure 3-9: Video/power extension cable and camera's female power cable connected

3.2.2 – PTZ (PAN/TILT/ZOOM) CAMERAS

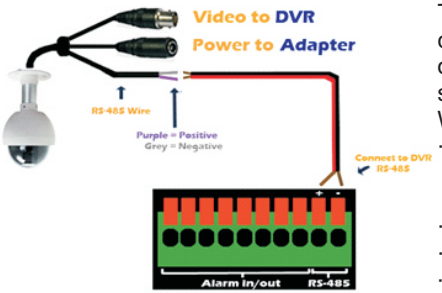


Figure 3-10: Connecting PTZ camera to RS485 Interface[1]

This section only covers connecting PTZ cameras to the rear panel of the DVR. In order to setup the software options, please see Section11-PTZ SETUP.
What you will need:

- PTZ Camera (only CM-T1311BG, CM-T1001BG, and CM-T1002BG have pan, tilt, and zoom control functionality)
- RS485 (red/black) wire (not included)
- DVR with RS485 interface port
- Electrical tape
- Video + Power Extension Cable (sold with some kits)
- 12V/5A Power Adapter for each camera

1. Connect the female BNC video connector from the camera into the male BNC video connector of the extension cable. The male end attaches to the female end clockwise and locks into place. See Figure 4.
2. Your 16-Channel DVR has sixteen video input ports, labeled CH1 to CH16, corresponding to the channel that is viewed and configured in the DVR console. Select the video input channel of your choice and attach the BNC connector on the other end of the extension cable to the video input channel. See Figure 5.
3. Insert the RS485 wires into the RS485 interface port.
   I. Holding one end of RS485 cable, use wire cutters to strip about ½" of the plastic casing around the red and black wires, taking care to not cut or damage the copper wire.
   ii. Using a pin or eyeglass screwdriver, depress the tab above the positive (+) port.
   iii. Insert the red wire until slight resistance is met.
   iv. Release the tab to lock the wire in place.
   v. Depress the negative (–) tab.
   vi. Insert the black wire until slight resistance is met.
   vii. Release the tab to lock the wire in place.
4. Connect the camera's pink/gray[2] RS485 wires to the red/black RS485 wires.
   I. Holding the RS485 cable extending from the rear of the camera, use wire cutters to strip about ½" of the plastic casing around the pink and gray wires, taking care to not cut or damage the copper wire.
   ii. Twist the pink and red wires (+) together.
   iii. Twist the gray and black wires together (-) together.
   iv. Repeat steps i through iii for each additional PTZ camera.
   v. Secure wires with electrical tape.
5. Connect the female end of the 12V DC power connector from the camera to male end on the extension cable. See Figure 6.
6. Connect power connector on other end of extension cable to power adapter.

For instructions on configuring dip switches for PTZ cameras, please visit http://zmodo.net or contact Technical Support.

3.3 – CONNECTING POWER

The H9106UVD-SV package includes a 12V/8A DC power supply.
When connecting the DVR and cameras to a power source, please only use the power adapters or power boxes supplied by Zmodo.

Please do not cut, splice, or otherwise modify the electrical wires on any of the Zmodo cameras, DVRs, or power supplies. Doing so will prevent us from providing further technical support and will void the equipment warranty.

3.4 – Connecting an External Alarm

The H9106UVD-SV supports connecting external alarm sensors to the RS485 interface on the rear panel of the DVR.
The purpose of external alarm sensors is to activate recording on a given channel when the sensor is activated or a condition is met, such as a door opening.
To configure the external alarm settings, please refer to Section 10.2.
For complete instructions regarding connecting external alarm sensors, please visit or contact Technical Support.

1.This figure is only a representation. Actual RS485 inputs and wire colors may differ slightly.

2.Camera's RS485 wire colors differ by make and model.

3.5 – CONNECTING A DISPLAY

3.5.1 – CONNECTING A TV

What you will need:
- ✓ DVR
- ✓ TV (not included)
- ✓ BNC to RCA Adapter (sold separately)
- ✓ RCA A/V cable (not included)

Step 1: Power off DVR and TV.
Step 2: Locate Video Output port on rear panel of DVR.
Step 3: Connect BNC-RCA adapter to one of the two Video Output ports.
Step 4: Insert one end of yellow (video) connector into BNC-RCA adapter and other end into yellow (video) female input jack of TV.
Step 5: Power on TV. It may be necessary to change TV channel to AUX or INPUT.
Step 6: Power on DVR. Wait until system is fully initialized.

Please refer to Section 2.2 – H9106UVD-SV Rear Panel for location of ports.

3.5.2 – CONNECTING A COMPUTER MONITOR

What you will need:
- ✓ DVR
- ✓ VGA Monitor (sold separately by retail electronics stores or as an add-on option with DVRs and complete security kits)
- ✓ VGA cable (usually included with monitor)

Step 1: Power off DVR and monitor.
Step 2: Locate VGA port on rear panel of DVR. See Section 2.2.
Step 3: Connect VGA cable from monitor to VGA port on rear panel of DVR.
Step 4: Power on monitor.
Step 6: Power on DVR. Wait until system is fully initialized.

No other configuration is necessary.

Important !
· The VGA output of the DVR does not function with DVI or HDMI monitors unless an adapter is used (sold separately by retail electronics stores).

· We do not advise changing the DVR's VGA monitor resolution. This could render the DVR display unviewable. If that situation occurs, please see Section 14.3.1

3.6 – Connecting a USB Backup Device

Two types of USB devices that can be connected to the DVR for backing up recording files are either a portable flash drive (thumb drive) or an external hard drive.

The DVR runs on a Linux platform, so the drive must be formatted for the DVR to

recognize it and a Windows PC can read the files. While Linux can theoretically read NTFS, FAT32 is a preferable option.

The USB Backup Device Port is on the front panel of the DVR, and it is identified with the universal USB symbol ( )

If the flash drive or external HDD is formatted properly, simply plug the device into the USB port on the DVR

While you can either format the drive as FAT32 first from a Windows PC, you may also format the drive using the USB format command in the HDD Management console.

Important Note: Formatting the drive will erase all contents currently stored on it.

3.7 – Connecting a USB Mouse

The mouse USB port is on the rear panel of the DVR, and it is labeled with a mouse icon.
1. Power off or unplug the DVR.
2. Connect mouse.
3. Power on or plug in the DVR.

No other configuration is necessary.
Troubleshooting Tips
Issues
- There is no mouse pointer
- There is a pointer, but it does not move.
- The mouse stops working.

Suggestions
1. Follow steps one through three above.
2. Try a different mouse.
3. Test the malfunctioning mouse by connecting it to a computer.

3.8 – CONNECTING THE DVR TO A LOCAL AREA NETWORK (LAN)

These instructions will connect the DVR to local area network; however, further steps may need to be taken to view the DVR on a local computer.
What you will need:
- DVR
- Ethernet cable (not included)
- Network Router (not included)

Steps:
1. Power off DVR.
2. Connect one end of Ethernet cable to LAN port on rear panel of DVR.
3. Connect other end of Ethernet cable to an open LAN port on the network router.
4. Power on DVR.

Troubleshooting Tips
Issue

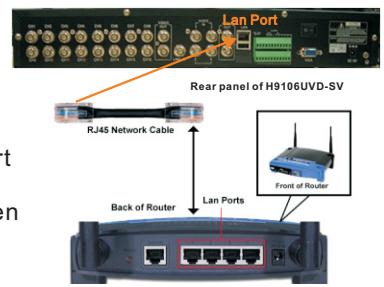


Figure 3-10: Connecting the DVR to the router

· LAN port lights are not lit either on DVR or network router.

Suggestions

· Try different Ethernet cable.
· Reboot DVR.
· Reboot router.

For more information regarding configuring your DVR for local and remote access, please visit http://zmodo.net or contact Technical Support.

4 - STARTING UP YOUR DVR

4.1 – SYSTEM INITIALIZATION

Connecting the power supply to the DVR and flipping the rear power switch to “” will begin the startup process. After a few moments, a message similar to the following will be displayed

Figure 4-11: System initializing message should appear a few moments after powering on the DVR.

4.2 – MAIN VIDEO FEED DISPLAY

After the DVR has completed the startup process, the main video feed will be displayed. If no cameras, connected, the channels will show Video Loss status messages. If cameras are connected and working properly, live video will appear on the respective channels.

· Full Screen Mode – Double-click channel to be maximized

· Sixteen Channel Mode – Double-click while in Full Screen Mode

· Quick Launch Menu – Right-click on screen

· Multipicture Mode – Right-click to activate Quick Launch menu and then select MULTIPICTURE.

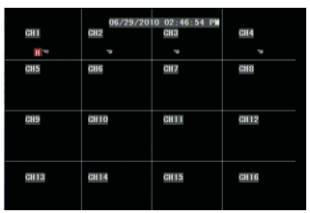


Figure 4-12: Main Video Display when no cameras are connected. The “H” icon indicates no hard drive detected.

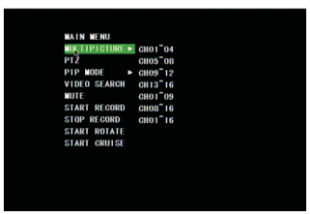


Figure 4-12: Multipicture options in Quick Launch menu

4.3 – SETTING SYSTEM DATE AND TIME

In order to find and view recordings for the proper date, it will be necessary to set the system date and time.

1. Go to Main Menu > System > Date/Time
2. Click Date field and enter today's date.
3. Click Time field and enter current time.
4. Click Time Zone drop-down menu and select proper time zone.
5. Click DST drop-down menu and select On or Off for your location.
6. Click Apply > OK > Exit.

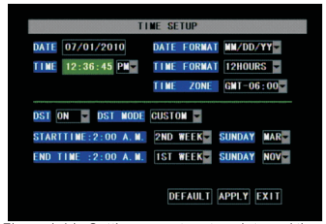


Figure 4-14: Setting correct system date and time

5 – MENU OVERVIEW

5.1 – Main Menu

The Main Menu contains the following sub-menus:

1. Camera – Configure Live View and color options.
2. Record - Configure recording options, resolution, and scheduling
3. Network – Configure DVR for local and remote online access
4. Search – Search for, play, and backup recorded files
5. Devices – Manage hard drive, alarm, PTZ, mobile phone, and motion detection settings.
6. System – Configure date and time, security settings, video options, system language, device information, and automatic maintenance.

In order to access the Main Menu, either right-click on the live feed display and then click Main Menu or press the Menu button on the front panel.

5.1.1 - Menu Function Buttons

The following buttons are common to most menus and submenus:
DEFAULT – Clicking this button resets current menu options to factory defaults.
APPLY – Saves changes made to Display Setup options.
EXIT – Exits Display Setup menu. Changes will be discarded if not applied first.

Figure 5-17: Main Menu

5.2 – Quick Launch Menu

In order to access the Quick Launch menu, from the main video feed, right-click the mouse.

MAIN MENU – Accesses Main Menu

MULTIPICTURE – Sets preference for live video display. Options are:

CH01-04
CH05-08
CH09-12
CH13-16
CH01-09
CH08-16
CH01-16

PIP MODE – Selects Picture-in-Picture mode. Options are 1X1 and 1X2.

PTZ – Accesses Pan/Tilt/Zoom control panel. See Section 15 – PTZ Control Panel.

VIDEO SEARCH – Accesses Video Search menu for locating recorded video files

MUTE – Disable audio output.

START RECORD – Starts manual recording

STOP RECORD – Stops manual recording

START/STOP ROTATE – Executes/Aborts channel view rotation

START/STOP CRUISE – Executes/Aborts PTZ program

MENU LOCK – User must enter password in order to access Main Menu and Quick Launch options.

This feature is available after the admin and user passwords are configured.

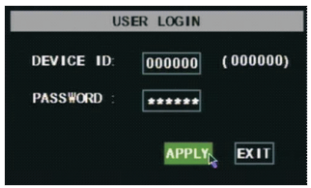


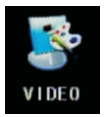
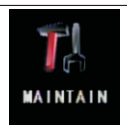
Figure 5-15: Menu Lock dialog box

Figure 5-16: The Quick Launch is activated by a right-click on the main video display.

5.3–MAIN MENU FUNCTIONS TABLE

Menu Option	Function	Sub-Menus	Function
Display Setup	Display Setup configures the live view for each channel.	Color Setup	Color Setup permits adjustment of video for each individual camera
Record Setup	Display Setup configures the live view for each channel.	Schedule	Display Setup configures the live view for each channel.

Netword Setup	Configures DVR and cameras to be viewed and controlled remotely from any computer with an Internet connection.	DDNS Setup	DDNS settings maintain the link between the DDNS account and the public IP address.
Video Search	Searches for recordings and system events. Plays back and backs up recordings.	Playback File List Log Search	Plays back recordings Lists recordings Lists system and alarm events
Device Management	HDD Management Alarm Setup PTZ Setup Mobile Motion Detection KB Setup	HDD Management	Displays hard drive status, space and recording time. Commands are available to format the hard drive and USB backup device.
		Alarm Setup	Configures notification conditions, alarm settings, and e-mail options.
		PTZ Setup	Configures DVR firmware to match PTZ cameras dip switches.
		Mobile	Sets a username, password, and port for connecting to the DVR remotely via mobile phone.
			Turns and off motion detection. Sets sensitivity and detection area.

		KB Setup	Configures RS485 keyboard (not sold by Zmodo).
System Setup	Date/Time Setup Password Setup Audio/Video Setup System Language System Information System Maintain	Time Setup	Sets system date, time, time zone, and DST adjustment.
		Password Setup	Allows admin and user-level password protection and unique DVR identification.
		 Audio/Video Setup	Selects NTSC or PAL. Enables Auto-Sequence (rotation) and sets dwell time. Selects video resolution. Adjusts volume of audio input.
		System Language	Sets display language of firmware.
		System Information	Provides motherboard version, firmware version, and MAC address.
		 System Maintain	Schedule automatic reboots (to lock the menu). System Update (firmware not available for H9106UVD-SV) Load factory defaultsReboot DVR.

6 - Display Setup

Display Setup menu is to configure the live view for each channel.

From the Main Menu, select Camera to access the Display Setup menu.

Channel Column (highlighted) assigns Title, Position, Color, and Live options for individual channels.

Figure 6-18: Display Setup menu

6.1 - TITLE

Title field allows each channel to have its own nickname (e.g., CashReg1, FrontOff, etc.). The name may consist of uppercase letters, lowercase letters, and digits up to a maximum of eight characters.

6.2 - POSITION

This option determines position of channel title in live camera view.

6.3 - COLOR

Color Setup permits adjustment of video for each individual camera. Click and drag the slider bar to move it left and right.

Color characteristic settings range from 0 to 63, with the default at 31.

Hue changes main colors in the main channel live display (red, blue, green, etc.)

Bright darkens the live view with a lower setting, whereas a higher setting brightens the live view.

Contrast creates a greater contrast between light and dark areas.

Saturation makes colors more or less vivid.

6.4 - LIVE

Shows or hides live feed for respective channel.

6.5 - DISPLAY TIME OPTIONS

While in Live View

Shows or hides current date and time on live video display.

While Recording

Shows or hides date and time while recording.

7 - Configuring Recording Settings

To access the Record Setup menu, from the Main Menu, select Record.

On the H9106UVD-SV, some settings on this page affect how all cameras record. Individualized camera options are enabling/disabling recording and recording

Figure 7-19: Record Setup Menu

7.1 – CHANNEL CONFIGURATION SELECT

The CH1~CH4 drop-down menu accesses the respective channel groups for configuration: CH1-CH4, CH5-CH8, CH9-CH12, and CH13-CH16.

7.2 - RECORD

There is a drop-down menu for each channel. The options are On and Off. Selecting Off will disable the recording for the desired channel.

7.3 – QUALITY

Choose the quality rate for the recorded video. The options are Best, Fine, and Normal.

7.4 – RESOLUTION

Selects the recording resolution for all channels. The options are D1, HD1, and CIF.

In the USA and Canada, the video system should be set to NTSC, whereas Europe uses PAL.

While a higher resolution will make the video playback smaller, it will also be more defined and use more storage space.

7.5 – AUDIO

Select Enable or Disable to turn on or off the recording of audio from audio-supported cameras connected to the audio input channel(s).

7.6 – PACK TIME

Choose the maximum recording time for a single video file. Options are 15, 30, 45 and 60 minutes.

7.7 – RECORDING MODE

Click the Recording Mode drop-down menu to reveal the options, which vary

slightly by DVR model.

Always

When Recording Mode is set to Always, all channels enabled will record continuously until turned off.

Schedule

When Recording Mode is set to Schedule, a SCHEDULE button will appear to the right of the menu.

7.7.1 – SCHEDULE SETUP

A. CHANNEL – Configure each channel individually or all channels as a group

B. Calendar – The days of the week are divided into hour blocks on a 24-hour clock, with 00 being midnight and 23 being 11:00 PM. This grid blocks are where recording type options are turned on and off.

C. Check one of these boxes and then click a square in the calendar grid to change it to that color.

a. Alarm (red) – For alarm trigger or motion recording.
b. General (green) – continuous recording
c. No Record (black/blue) – Selected channel(s) will not record during these days and times.

D. FROM SUN TO ALL – Rather than selecting the same record modes for each day separately, copy t he record modes from one day to another. Click COPY to perform the action.

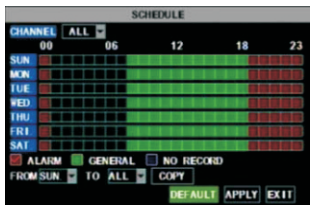


Figure 7-20: Schedule Setup

8 – NETWORK SETUP

By configuring the network settings, the DVR and cameras can be viewed and controlled remotely from any computer with an Internet connection.

For complete instructions on configuring your DVR and network for remote access, please visit http://zmodo.net or contact Technical Support.

Figure 8-23: Network Setup menu with default values

8.1 – TYPE

Select the type of network connection the DVR will have.

Static will give the DVR a permanent address on the local network, which is the preferred setting.

DHCP will set the DVR to receive an address from the network router. On this setting, the DVR local IP address may change from time to time.

PPPoE is used for certain DSL Internet providers. A username and password is required to establish a connection to the Internet. Contact your ISP for more information. Selecting this network type will prompt for the PPPoE name and password.

8.2 – MEDIA PORT

The Media Port is used for connecting to the DVR using the Netviewer software. Generally, the default port 9000 does not need to be changed.

There will need to be a port forwarding rule configured on the router to forward inbound traffic on port 9000 to the local address of the router.

Note: The media port must be defined on the DVR and forwarded on the router in order for remote access to function.

8.3 – WEB PORT

The purpose of the Web Port is to allow access to the DVR via Internet Explorer. The default value is 80, which is the http port standard.

Typically it is not necessary to change this value unless the ISP blocks port 80.

A port forwarding rule must be created for the web port.

8.4 – IP ADDRESS

This field displays the local IP address of the DVR. The factory default value is 192.168.1.100.

This is to be modified to a user-selected value according to the address rules of the DHCP server (typically the router). Check the router for address range.

8.5 – SUBNET MASK

This field displays the Subnet Mask of the LAN (local area network). While the value rarely needs to be changed, it must be matched with the correct address of the network.

8.6 – GATEWAY

The Gateway value is the local address of the router to which the DVR is connected. The default value is 192.168.1.1.

8.7 – DNS

DNS, or Domain Name Server, should also be set to the local address of the router.

8.8 – LOCAL CONNECTION INSTRUCTIONS

1. Connect DVR to Router (See Section 3.9).
2. From a Windows PC on the same LAN, open a command prompt (e.g., Start > Run > cmd).
3. Type ipconfig and press Enter.
4. Note the following: IP Address, Subnet Mask, and Default Gateway.
5. On the DVR, go to Network from Main Menu (refer to Figure 8-22).
6. Set Type to Static.
7. Enter Media and Web Port information (Sections 8.2 and 8.3. If changing Web Port, a port forwarding rule must be created on the router. Please visit http://zmodo.net or contact Technical Support for assistance setting up port forwarding.
8. Enter IP Address of DVR (Section 8.4). This is to be modified to a user-selected value according to the address rules of the DHCP server (typically the router). Check the router for address range.
9. Enter Subnet Mask if different than default (Section 8.5).
10. Enter local address of router in Default Gateway and DNS fields.
11. Click APPLY and then OK.
12. Exit all menus until DVR restarts. If DVR does not restart automatically, return to Step 5 to verify settings.

8.8.1 - TESTING DVR LOCAL CONNECTION

Method 1: Netviewer (D9 Client) Software

1. Install D9 Viewer on local PC.
   a. Software is on CD included in shipment.
   b. Download from http://zmodo.net.
2. Launch software.
3. Log in to DVR.
   a. Enter Local IP Address of DVR.
   b. Enter Media Port.
   c. Enter either user or admin password (if configured).
   d. Network field is Internet.
   e. Click LOGIN.

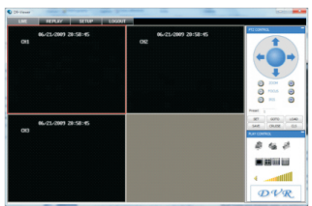


Figure 8-23: Successful connection via Netviewer (D9 Client)

Method2: Internet Explorer

1. Modify IE Security Settings
   a. From the Tools menu, select Internet Options.
   b. Select the Security Tab and then click the Custom Level button.
   c. Locate “Download Unsigned ActiveX Controls”. Change to Prompt.

d. Confirm changes.

2. Enter local address of DVR.
   a. In the address bar, type the local address of the DVR (e.g., http://192.168.1.140).
   b. Append address with :webportnumber (e.g., http://192.168.1.140:8080), if a port other than 80 is being used and the port forwarding rule has been created.
   c. When presented with Information Bar referring to downloading controls, click the bar.
   d. Click Yes or OK to proceed downloading and installing the controls.

Figure 8-22: Successful connection to DVR via Internet Explorer

8.9 - UPNP

If the local area network router supports UPnP (Universal Plug-n-Play), it is not necessary to configure port forwarding.

8.10 – DDNS SETUP

Unless specifically paying for a static (permanent) public IP address, do not configure this section. Most Internet customers have a dynamic ("leased") IP address.

A DDNS (Dynamic DNS) service allows the DVR user to create a hostname and domain (e.g., mydvr.dvrdns.org) that is associated with his/her public IP address.

Entering the DDNS account information into the DDNS Setup menu maintains the link between the DDNS account and the public IP address.

Most routers also have a DDNS section. It is preferable to enter the DDNS account information in the router, unless it is not possible. In any case, do not enter the information on both the router and DVR.

If the DDNS option is not available on the router, download and install the DynDns Updater (www.dyndns.com) on a computer that will be running continually.

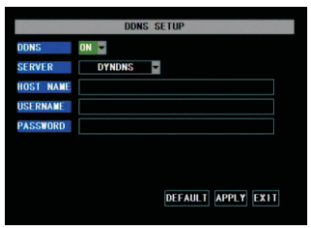


Figure 8-24: DDNS Setup

DDNS has two options: ON and OFF. Selecting On enables the DDNS feature of the DVR, while selecting Off disables the feature.

Service designates the DDNS service being used. The options available are 3322 and Dynamic DNS. 3322.org is a Chinese service, so English speakers should select Dynamic DNS.

Host Name and domain name are entered in this field. For example, myhomedvr.homeip.net.

Username and Password of the dynamic DNS account are entered in the respective fields.

9 – Searching, Playing and backing up Video files

To access the Video Search menu, from the Main Menu, go to Search (the floppy disk icon) or right-click on the main video display and click from the quick launch Video Search.

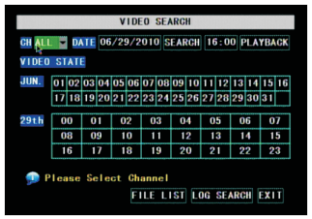


Figure 9-25: Video Search menu

9.1 – SEARCHING FOR RECORDINGS

The default value is today's system date.

1. Select the channel to search through or all channels.
2. Enter the file of the recording to be located.

Note: The system date and time must first be set in order for the video search to perform correctly. See Section 4.3 – Setting System Date and Time.

3. Enter in a time at which to begin searching for files on the designated date (optional).
4. Click the Search button to execute the file search.

9.2 – IDENTIFYING RECORDINGS

The Video State calendar is divided into two sections: (1) days of the month searched and (2) hours of the day searched further subdivided into 24 hour blocks.

The presence of video files is indicated on the Video State calendar by green and red bars underscoring the date and/or hour on which they were recorded.

Green signifies a manual or scheduled recording, whereas red signifies a motion or alarm-activated recording.

9.3 – FILE LIST

Pressing the File List button after performing a search, brings up the menu below.

Clicking the TYPE drop-down menu and selecting either ALL, NORMAL, or ALARM will filter the search results by that category.

Normal is for standard recording, while Alarm is for motion detection and external alarm activated recordings.

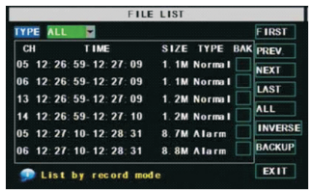


Figure 9-26: File List menu

9.4 – LOG SEARCH

Using the Log Search function, system and alarm events can be viewed.

Log Type

Select the type of events to be viewed, either All, Alarm, or Operation.

Start

Enter the starting date and time of the range to be searched.

End

Enter the ending date and time of the range to be searched.

Search

Begin the search.

Figure 9-27: Log Search menu

Figure 9-28: Log List

9.5 – PLAYING RECORDINGS

Method 1:

Select the day or hour to be viewed, and then click the Playback button. The Playback console will be displayed.

Figure 9-29: Video Playback console

Method 2:

1. Select the day or hour to be viewed, and then click the File List button.
2. In the File List menu (see figure below), highlight the file to be viewed.
3. Press SEL on the front panel or remote, or double-click with the mouse.

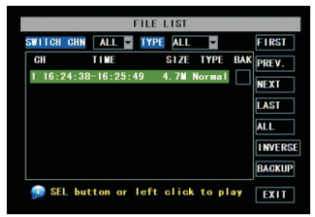


Figure 9-30: File List menu

9.5.1 – FILE LIST CONTROLS

Type presents a drop-down menu for sorting recordings by ALL, ALARM, or NORMAL.
First returns to the first page of search results.
Prev moves to the previous page.
Next moves the next page.
Last advances to the last page of results.
All selects all files for backing up.
Inverse inverts the files that are checked to unchecked and vice-versa.
Backup activates the backup procedure.

Exit returns to the Video Search menu.

9.6 – BACKING UP RECORDINGS

(Refer to Figure 9-20.)

1. Insert blank DVD or connect USB backup device (see Section 3.7).
2. Select Main Menu > Search.
3. Search for recordings to be backed up. See Section 9.1.
4. Click File List button.
5. Check BAK box next to recording(s) to be backed up.
6. Click the BACKUP button.
7. Select either the USB or DVD backup option and then click APPLY.

Figure 9-31: Backup Device Selection

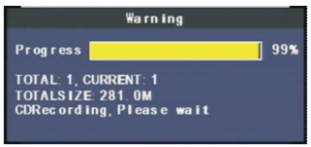


Figure 9-32: DVD Backup processing

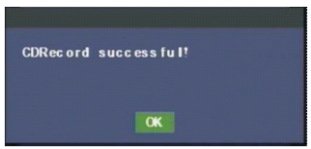


Figure 9-33: DVD Backup Success

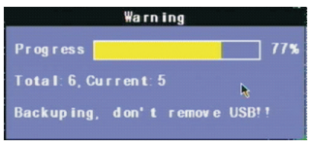


Figure 9-34: USB Backup Processing

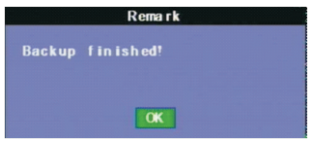


Figure 9-35: USB Backup Success

8. After backup process completes successfully, the backup device can be removed.

Note: The backup file will be in H.264 (MPEG-4) format, which can be converted to AVI either through the DVR interface or D9 Client software.

10 – DEVICE MANAGEMENT

The Device Management menu is divided into the following six options:

1. HDD displays hard drive status, space and recording time. Commands are available to format the hard drive and USB backup device.
2. Alarm console is for configuring external trigger inputs, notification conditions, alarm settings, and e-mail options.
3. PTZ setup menu is used to match PTZ camera dip switch settings.
4. Mobile menu is used to enter a username, password, and port for connecting to the DVR remotely via mobile phone.
5. Motion Detection menu turns and off detection, and sets sensitivity and detection area.
6. KB Setup is to configure an RS485 keyboard

Figure 10-36: Device Management Menu

10.1 – MANAGING THE HARD DRIVE

The hard drive is a semi-permanent storage device necessary for the DVR to record video and audio input from the cameras.

The SATA hard drives available for the DVR are specially designed to withstand the rigorous demands of continuous recording.

The H9106UVD-SV DVR can support up to a 1 TB SATA hard drive.

See Section 3.1 for installing a hard drive.

10.1.1 – HDD STATUS

This field reports on the presence and/or condition of the hard drive.

OK - A healthy hard drive connected properly will be detected automatically by the DVR.

No Disk Found – Hard drive is either not I nstalled, not connected properly, or is malfunctioning. Verify that hard drive is installed and connected correctly.

Unformatted – Hard drive is present but not formatted or is malfunctioning. Drive must be formatted before continuing.

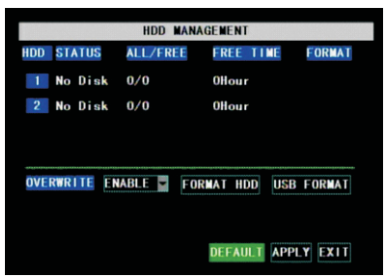


Figure 10-33: HDD Management Console

10.1.2 – HDD PROPERTY FIELDS

All/Free

This field presents a ratio of the remaining storage space versus the total storage space available after formatting, which will be slightly less than the maximum size.

An alarm can be set to notify by buzzer and e-mail when the free space is low.

Free Time

Free space on hard drive is converted into an estimate of recording time (in hours)

remaining.

Format

If a hard drive is detected, a checkbox will appear in this column next to the hard drive number. Checking the box will select the drive for formatting.

10.1.3 – OVERWRITE

With Overwrite **enabled**, when the hard drive runs out of space to record, the DVR will return to the oldest file first and begin overwriting files.

Important Note! If overwrite is enabled, it is imperative to back up files regularly. Once a file has been overwritten, neither Zmodo technical support nor the manufacturer can assist in recovering the overwritten file.

If Overwrite is **disabled**, the DVR will stop recording when the hard drive is full. It will be necessary to enable overwrite, replace the hard drive, or format it.

10.1.4 – FORMAT HDD

Clicking this button will execute the hard drive format process. Formatting the hard drive must be completed before recording of video files.

A confirmation dialog box will be displayed before formatting begins.

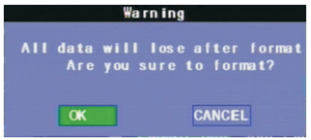


Figure 10-38: Hard drive format confirmation dialog box.

Successful Format
After the hard drive is formatted, the DVR must be restarted. Press OK at the successful format dialog box. Then press the Menu button twice. Finally, press OK when prompted to restart.

Unsuccessful Format
If the error message below is displayed, check the hard drive connections. If the hard drive is connected properly, the hard drive may be defective.

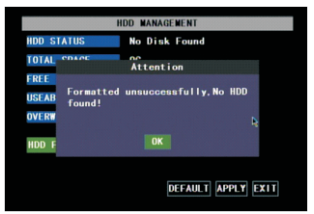


Figure 10-39: Unsuccessful format when hard drive is not present, is disconnected, or is defective.

See Section 3.1 for instructions on checking the hard drive connections.

10.1.5 – USB FORMAT

Clicking this button will execute the USB drive format process. Formatting the USB drive must be completed before recorded files can be backed up.

The same warning prompt for the HDD will be displayed (Figure 10.35).

If an error message appears stating no USB device is found, perform the following procedure:
1. Power off DVR.
2. Reinsert USB device into USB port other than mouse port.
3. Power on DVR.

10.2 – ALARM SETUP

10.2.1 – I/O CHANNEL AND STATUS

I/O (input/output) channels are to connect external sensor alarms to the camera on the specified channel.

An example of an external sensor is a laser-activated motion detector.

External sensors are not necessary to detect motion. The DVR is equipped with an internal motion detection system.

The first drop-down menu in the upper-left is to select the group of four channels to configure.

The I/O Status drop-down menu has three options:
· NO – Normally Open. The external sensor's default state is an open (off) circuit.
· NC – Normally Closed. The external sensor's default state is a closed (on) circuit.
· OFF – The external sensor channel is turned off. The external sensor channel will not be used.

Figure 10-40: Alarm Setup menu

10.2.2 – NOTIFICATION OPTIONS

HDD Loss

When HDD LOSS is checked, the system alarm will be triggered, sounding the buzzer (if enabled). Hard Drive loss occurs when the hard drive is taken offline, either by drive failure or disconnection from the DVR.

Whether the alarm is set to On or Off, a red square with a white H will be displayed on the main video screen if hard drive loss occurs. The H icon will also appear if there is no hard drive installed or if it has not been formatted.

HDD SPACE

When this trigger is enabled, the notification will be activated when the remaining space on the hard drive is too low to continue recording.

If the buzzer is set to off, no audio alarm will occur.

Video Loss

Video Loss occurs when the video input from the camera is interrupted from the DVR, either by physical disconnection or camera failure.

"VIDEO LOSS" will be displayed on the main video screen for the affected channel(s).

Video Loss is normal when powering on the DVR for the first time before connecting cameras.

Motion Buzzer

Buzzer alarm is activated when motion is detected on one of the cameras set to

detect motion. Options are ON and OFF.

10.2.3 – ALARM MANAGE

· OUTPUT sets the duration for the external alarm. Options are OFF and 10, 20, 40 or 60 seconds.

· BUZZER sets the duration of the audio buzzer when an alarm condition is met. Options are OFF and 10, 20, 40 or 60 seconds.
· DURATION sets the amount of time the camera will record after the alarm has been triggered. Options are 30 seconds, 1, 2, and 5 minutes.

· PreRec can be OFF or 10 seconds. When set to 10 seconds, channels on which motion is detected record 10 seconds prior to motion detection activation.

10.2.4 – E-MAIL SETUP

This menu is used to configure the DVR to send an e-mail message to a designated address when an alarm condition is met.

To begin the e-mail configuration, select ON from the EMAIL drop-down menu. Doing so will reveal the configuration fields.

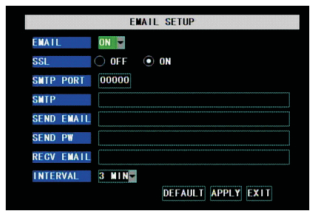


Figure 10-40: Email Setup Menu

SSL

Secure Socket Layer, is a security protocol used by some e-mail providers to protect communication over the Internet.

Some e-mail services require the use of SSL, such as Hotmail and Gmail. Check with your e-mail provider.

If it used, enable the SSL feature by clicking the ON radio button.

SMTP PORT

SMTP, or Simple Mail Transfer Protocol, is used by many user-based e-mail services for outgoing messages.

Enter the SMTP port that the e-mail service provider uses. In most cases, the port is 25 or 465. Check with your e-mail provider.

SMTP

This field is for the SMTP server address used by your e-mail provider. Check with your e-mail provider.

The format of the address would be similar to smtp.emailprovider.com.

SEND EMAIL

Enter an e-mail address to identify that the DVR is sending the alarm notification

(e.g., dvr@emailprovider.com). The e-mail address must be set up as an account with the provider.

SEND PW

The password of the account sending the e-mail message. Some e-mail service providers require password authentication in order to process an outgoing message.

RECV EMAIL

Enter the e-mail address that will receive the alarm notification messages.

INTERVAL

The amount of time between e-mail alerts. Options are 3, 5, and 10 minutes.

11 – PTZ SETUP

This section only covers the software configuration for the PTZ cameras. For guidance on installing the cameras, please see Section 3.2.4 – Connecting Your PTZ Cameras.

For directions on programming the PTZ camera to survey automatically, see Section 15 – PTZ Cruising.

The settings under each channel must match those of the camera's circuit board switches. There are ten switches (0-9), called dip switches, in the camera. the dip switches, visit http://zmodo.net or contact Technical Support.

Figure 10-42: PTZ Setup Menu

11.1 – OPTIONS

Protocol

The DVR must send command signals to the PTZ camera to pan, tilt or zoom. Conversely, the PTZ camera must be able to interpret the command. Command languages are known as protocols. Zmodo PTZ cameras use Pelco-D and Pelco-P protocols. These protocols were designed by Pelco. Pelco-D is more common.

Set the protocol to match that of the PTZ camera. The two options are Pelco-D and Pelco-P.

Pelco-P cameras use No parity, 8 Data bits and 1 Stop bit, as do Pelco-D cameras.

Baud Rate

Baud rate is the data transmission speed used for communication between the DVR and PTZ camera. This setting must match the switch on the PTZ camera.

The baud rate options are 1200, 2400, 4800 and 9600.

The default setting of 9600 should be kept for most Zmodo PTZ cameras. Check the specific camera model.

Data Bit

Sets the number of bits used in a character of data.

The options are 5, 6, 7, or 8. The default setting of 8 should be kept for Zmodo PTZ cameras.

Stop Bit

Stop bits sent at the end of every character allow the receiving signal hardware to detect the end of a character.

Options are 1 and 2. The default setting of 1 should be kept for Zmodo PTZ cameras.

Parity

Parity is a method of detecting errors in transmission.

Options are None, Odd, Even, Mark, and Space. The default setting of None should be kept for Zmodo PTZ cameras.

Cruise

With the Cruise setting set to ON, the PTZ camera on the assigned channel can operate automatically after being programmed.

When set to OFF, the camera will not execute its programmed surveillance.

Address

The Address field must match that of camera address dip switch setting.

12 – MOBILE PHONE SETUP

This DVR supports mobile phone access by the following devices:
a) iPhone™
b) Blackberry™ OS V4.7 or later
c) Windows Mobile™ Pro 5.0 and 6.1 OS
d) Nokia Symbian S60 3rd Edition (9.1) and S60 5th Edition (9.4)

Important Notes:

1. Ability to connect to DVR via mobile phone in no way constitutes or implies a verbal or written agreement.
2. When using mobile phone access, only one channel may be viewed simultaneously.
3. The video loading time and performance are determined by the connection bandwidth.

Before setting up the mobile phone on the DVR, configure the DVR for network access. See Section 8 – Network Setup or refer to the Network Setup Guide.

To access the Mobile Phone Setup, from the Main Menu, select Devices > Mobile.

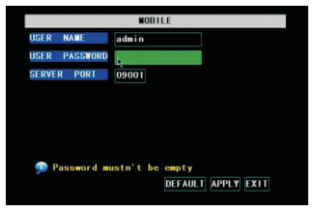


Figure 12-43: Mobile Setup Menu

USER NAME
Enter a username for the user connecting to the DVR via the mobile phone. This is not the same username as the admin or user account either for local or Internet access.

USER PASSWORD
Enter a password for the user connecting to the DVR via the mobile phone. This is not the same password as the admin or user account either for local or Internet access.

SERVER PORT
Enter a port over which the mobile phone will communicate with the DVR. We recommend using 9001. A port forwarding rule for the mobile port must be created on the router.

12.1 – SETTING UP YOUR PHONE

1. Download the H9106UVD-SV viewing software for the respective phone.
   a. iPhone software options are aPlayer and vMEye and can be downloaded from iTunes or http://zmodo.net.
   b. Blackberry software can be downloaded from http://zmodo.net.
   c. Windows Mobile and Nokia Symbian use Qqeye.
2. Install the software on the phone.
3. Launch the software.
4. Enter public IP address or dynamic DNS URL.
5. Enter username and password from DVR Mobile Setup menu.
6. Enter mobile port number (e.g., 9001).
7. Click Play, Start, or Log In button.

13 – MOTION DETECTION

To access the Motion Detection menu, go to the Main Menu, then select Devices > Motion.

Important! When cameras are set to detect motion, the main video feed will "jump" to the channel where motion is detected. This is a normal behavior and cannot be changed.

To access the Motion Detection menu, go to the Main Menu, then select Devices > Motion.

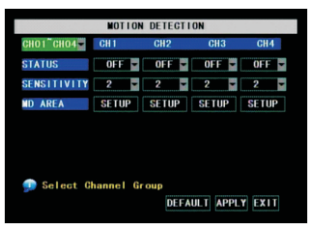


Figure 13-44: Motion Detection menu

13.1 - OPTIONS

Channel Group Drop Down Menu
The motion detection can be configured individually for each channel. The top row labeled MD CHANNEL is divided into columns for the respective channel.

Status
Selecting ON enables the internal motion detection feature for the specific channel. OFF will prevent the camera on the designated channel from detecting motion.

Sensitivity
Sets the sensitivity of the internal motion detection system. Options are 1, 2, 3, and 4, with 1 being the least sensitive and 4 being the most.

13.2 – MD AREA

Clicking this button will bring up the Motion Detection are selection sub-screen.

A 13x8 grid divided into red pixels is the motion detection area. Any moving object passing through a red square will trigger the internal motion detection.

Clicking a square, will turn the pixel from red to black, disabling the motion detection for that portion of the grid.

Clicking and dragging the green marker will allow

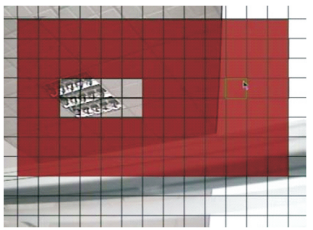


Figure 13-45: Motion Detection selection grid

14 – SYSTEM SETUP

To access the System Setup menu, go to Main Menu > System.

The System Setup sub-menus feature the following options:

1. System date, time, time zone, and DST adjustment.
2. Admin and user-level password protection and unique DVR identification.
3. VGA display resolution.
4. Change interface language.
5. Provide software version and change hardware address.
6. Scheduled reboot.

Figure 14-46: System Setup menu

14.1 – TIME SETUP(DATE/TIME)

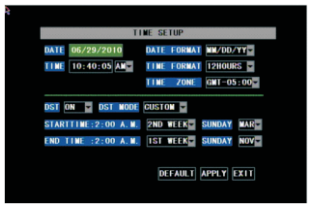


Figure 14-47: Time Setup menu

This sub-menu is used to set the system date and time options.

DATE

Enter today's date. The default system date reflects the factory BIOS date. Correct video recordings require setting the system date.

DATE FORMAT

Sets the appearance preference for the system date. Options are as follows:

- MM/DD/YY
- YY-MM-DD
- DD/MM/YY

TIME

Enter the current time. This will be used to timestamp video recordings.

TIME FORMAT

Options are a 12 or 24-hour format (00:00 – 23:59). When choosing 12HOURS, set AM/PM.

TIME ZONE

Time Zone options are in relation to GMT (Greenwich Mean Time), either + or -. Continental USA and Canada time zones are as follows:

Time Zone	Standard Time	Daylight Savings
Eastern	-5 GMT	-4 GMT
Central	-6 GMT	-5 GMT
Mountain	-7 GMT	-6 GMT
Pacific	-8 GMT	-7 GMT

Table 14-7: Time Zone GMT offset for Continental US and Canada

14.1.1 – DST (DAYLIGHT SAVINGS TIME)

Daylight Savings Time begins from 2:00 AM on the second Sunday of March until 2:00 AM on the first Sunday in November.

HOW TO SET DST

1. Confirm whether or not your area observes DST. If so, switch DST to ON.
2. Switch DST MODE to CUSTOM.
3. Change STARTTIME field to 2nd WEEK and SUNDAY to MAR.
4. Change END TIME to 1ST WEEK and SUNDAY to NOV.11

14.2 – PASSWORD SETUP

To access the Password Setup menu, go to Main Menu > System > Password.
This menu is used for setting administrator and user-level password protection and unique DVR identification.

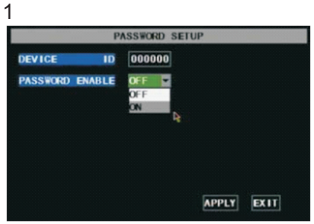


Figure 14-48: Password Setup menu

14.2.1 – DEVICE ID

Allows a six-digit unique identifier for the DVR.

14.2.2 – PASSWORD ENABLE

Switching this option to ON reveals the following settings:

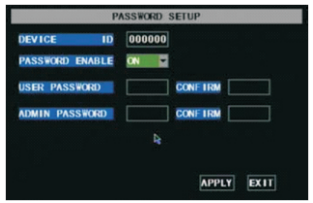


Figure 14-49: Password Setup Enabled

14.2.3 – USER PASSWORD

The user password grants access to the Search in Main Menu, but all other sub-menus are locked out. The user password also grants access to the Quick Launch menu.

The user password must be six digits and must be different from the admin password. After entering the user password, type it again in the Confirm field to the right.

14.2.4 – ADMIN PASSWORD

The admin password grants full access to all menus and system settings.

The admin password must be six digits and must be different from the user password. After entering the admin password, type it again in the Confirm field to the right.

Once the admin password is set, the Menu Lock function becomes available on the Quick Launch menu.

14.3 – VIDEO SETUP

To access the Video Setup options, go to Main Menu > System > Video.

Figure 14-50: Video Setup

14.3.1 – VIDEO SYSTEM

Select the analog television system for your region.

NTSC is used by North America, most countries in South America, Burma, South Korea, Taiwan, Japan, Philippines, and some Pacific island nations and territories.

Setting the wrong option can render the display unviewable. Please do not change the Video System to PAL.

To restore correct video settings, follow these steps:

Menu > RIGHTx2 > DOWNx1 > SEL > RIGHTx2 > SEL > DOWNx1 > SEL > UPx1 > SEL > DOWNx1 > SEL > wait 5 seconds > SEL

14.3.2 – VIDEO PORT

The Video Port is set to Live-Out and cannot be changed.

14.3.3 – DWELL TIME

Sets the sequence display time – how many seconds each channel will be displayed during rotation.

14.3.4 – SEQUENCE

Enables or disables the auto-sequencing (rotation) function.

14.3.5 – VGA RESOLUTION

Options are 800x600, 1024x768, 1280x1024, and 1440x900.

Important Note: Setting the resolution too high or out of range for your monitor can result in losing video output.

To restore correct video settings, follow these steps:

Menu > RIGHTx2 > DOWNx1 > SEL > RIGHTx2 > SELx2 > UPx1 > SEL > DOWNx2 > SEL > wait 5 seconds > SEL

Volume

Adjusts the volume of the audio output

14.4 – LANGUAGE (SYSTEM LANGUAGE)

To access the System Language menu, go to Main Menu > System > Language.

Setting the System Language changes all menus and text to the selected language after rebooting the DVR.

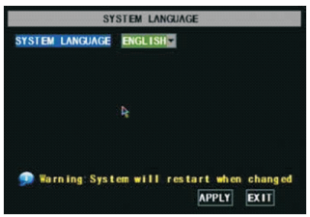


Figure 14-51: System Language menu

Language options are

English

Русский (Russian)

Italiano (Italian)

Español (Spanish)

Français (French)

Deutsch (German)

ELLHNIKA (Greek)

Português (Portuguese)

Polski (Polish)

14.5 – INFO (SYSTEM INFORMATION)

Access System Information by going to Main Menu > System > info.

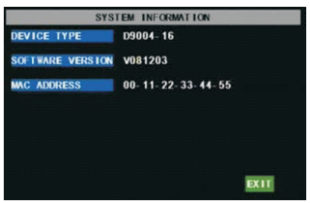


Figure 14-52: System Information

Device Type is a unique hardware identification for the motherboard.

Software Version is the version of the DVR firmware (Operating System). Please do not attempt to update the firmware without first contacting Technical Support.

14.5.1 – DEVICE TYPE

The Device Type is a unique hardware identification for the motherboard.

14.5.2 – SOFTWARE VERSION

Software Version is the version of the DVR firmware (Operating System). There are no firmware updates for the H9106UVD-SV.

14.5.3 – MAC ADDRESS

A MAC Address is another unique hardware identification used for a local area network. On the H9106UVD-SV, changes to the MAC address cannot be saved.

14.6 – MAINTAIN (SYSTEM MAINTAIN)

To access System Maintenance, go to Main Menu > System> Maintain.

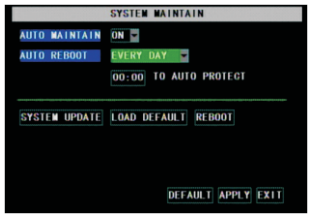


Figure 14-53: System Maintenance Console

In the System Maintenance console, the following operations can be performed:

- Schedule automatic reboot
- Update system firmware (no system firmware updates are available for the H9106UVD-SV)
- Load factory default settings
- Reboot DVR

14.6.1 – AUTO MAINTAIN

Enabling this feature (ON), displays the following additional options:
[insert screen shot here]

14.6.1.1 – AUTO REBOOT

Select the schedule options as follows:

1. Frequency
a. Every Day
b. Every Week
c. Every month
2. Day or Month
3. Time
4. Apply changes

14.6.2 – SYSTEM UPDATE

There are no firmware updates available for the H9106UVD-SV.

14.6.3 – LOAD DEFAULT

Clicking the Load Default button will restore all customized settings on the DVR back to their factory defaults.

It will not erase content on the hard drive.

Before executing the Load Default process, the user will be presented with a confirmation dialog box [shown below].

14.6.4 – REBOOT

The Reboot command will perform a safe reset of the DVR. A confirmation dialog

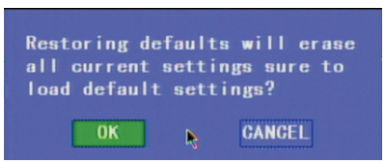


Figure 14-54: Load Default confirmation

Figure 14-55: Restart confirmation

15 – PTZ Cruising

15.1 – PTZ SETUP

Figure 15-56: PTZ Setup control panel

The PTZ Setup control panel is used to manually control the PTZ camera.

To access the PTZ Setup control panel, go to Quick Launch > PTZ.

The EXIT button returns to the main video feed.

15.1.1 - PTZ CONTROL PANEL FUNCTIONS

- Speed – Slide bar from SLOW to FAST. The speed factor range is 0 to 63.
- Zoom – Click – to zoom out and + to zoom in.
- Focus – Click – to focus out and + to focus in.
- Iris – Click – to close (narrow) the iris and + to open (widen) it.

15.2 – CRUISE SETUP

With Cruise Setup, each individual channel with a PTZ camera can be programmed to execute a defined surveillance routine.

If incorporating zoom, focus, and iris operations into the cruise program, return to the main PTZ setup controls, input the operation, and then return to Cruise Setup.

CHANNEL DROP-DOWN MENU

Selects the PTZ camera channel to be programmed.

Figure 15-57: Cruise Setup control panel

TOTAL

Displays the number of set points currently programmed on this channel. A set point is a stop location to which the PTZ camera is instructed to cruise upon execution of program.

CUR. POINT

Current Point displays the set point currently being programmed or edited.

STOP TIME

The number of seconds the PTZ camera is instructed to remain at this set point before moving the next set point.

15.2.1 – PTZ COMMANDS

GOTO

Entering a set point number in CUR. POINT and then clicking the GOTO button will present the settings of that set point.

SET

Clicking the SET button will save the current set point configuration and automatically proceed to the next set point.

CLEAN

Clicking the CLEAN button will clear the configuration of the set point.

Directional Arrows
Use the directional arrows to move the camera to the desired location of the current set point.

15.3 – STARTING AND STOPPING THE CRUISE PROGRAM

Starting the Cruise
1. Open the Quick Launch menu.
2. Click Start Cruise.

Figure 15-57: Start Cruise Quick Launch command

Stopping the Cruise
1. Open the Quick Launch menu.
2. Click Stop Cruise.

Figure 15-58: Stop Cruise Quick Launch command

16 – FREQUENTLY ASKED QUESTIONS

Q: What if the DVR does not detect the hard drive?

A: Hard Drive loss occurs when the hard drive is taken offline, either by drive failure or disconnection from the DVR.

A red square with a white H will be displayed on the main video screen if hard drive loss occurs. The H icon will also appear if there is no hard drive installed or if it has not been formatted.

Refer to Section 3.1 for instructions on how to ensure the hard drive is properly installed.

If the hard drive continues to appear to be malfunctioning, please contact Zmodo technical support.

Q: The DVR is requesting a password. What if I don't remember the password?

A: In most cases, technical support can assist in unlocking a DVR. The owner must contact us and provide the invoice or order number corresponding to the DVR.

Q: Why does the main video screen display the message: "VIDEO LOSS"?

A: Refer to Section 3.2 for instructions on connecting the cameras properly. Ensure the cameras are receiving power. Switch cables if some cameras display

video while others do not. Go to Main Menu > System > Video. Video System should be set to NTSC not PAL.

Q: Can the DVR get too hot?

A: It is not unusual for the DVR to become warm during continuous operation. The DVR is not equipped with cooling fans. Store the DVR in a cool, well-ventilated area out of direct sunlight.

If the DVR becomes excessively hot, turn it off, unplug it, and contact technical support.

Q: Why do the front panel controls work but not the remote?

A: Ensure nothing is obstructing the black sensor on the remote or the DVR. Also, place fresh batteries in the remote control.

Q: Can I use my own hard drive in the DVR?

A: If the hard drive is SATA and no larger than 1TB, then you can install your own hard drive in the DVR. Please note that our hard drives are especially designed for the rough wear of DVR recording, so standard hard drives may have a shorter life. In addition, a DVR-formatted hard drive cannot be read in a PC without special Linux software.

Q: Do I have to stop recording in order to play back files?

A: No. The DVR supports simultaneous recording and playback.

Q: Can I erase a certain recording file?

A: The only two methods for erasing files are overwriting the oldest file, with the overwrite function enabled, or formatting the hard drive, which will erase everything.

Q: Why can't I view my DVR online?

A: Settings may be configured incorrectly, or the DVR or local network may be offline.

Q: Why can't I control my PTZ camera?

A: Ensure the PTZ cameras are connected properly to the DVR. See Section 3.2.4.

Ensure the PTZ cameras are configured properly. See Section 11.

Q: Why does the buzzer keep sounding?

A: An alert has been triggered. Motion may have been detected, the hard drive

may be low on space or disconnected, or a camera may have lost video. Check your alarm settings. See Section 10.2.

17 – APPENDICES

17.1 - WARRANTY

All products carry a 1-year warranty unless otherwise indicated. 3 year warranty plan is also available for purchase. Zmodo will, at its sole discretion, replace or repair any products found to be defective during their warranty period. Zmodo will not honor any other warranty, implied or otherwise, including those of merchantability and fitness for a particular purpose.

17.2 – HARDWARE UPGRADE (TRADE-IN) POLICY

Please contact Zmodo for more information.

17.3 – FIRMWARE UPGRADES

Zmodo offers its customers free upgrades to the DVR firmware.

Please contact Technical Support for instructions.

Without Zmodo qualified technical support, Zmodo cannot be held responsible for DVR malfunction resulting from improper firmware installation.